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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,276	11/14/2003	Yong-Chul Yoo	1293.1987	9324
21171	7590	08/10/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			CAO, ALLEN T	
			ART UNIT	PAPER NUMBER
			2652	

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/712,276

Applicant(s)

YOO, YONG-CHUL

Examiner

Allen T. Cao

Art Unit

2652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 5, 6 and 8-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/14/03 &amp; 2/10/05</u> | 6) <input type="checkbox"/> Other: _____  |

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Tago (US. 4,470,137).

Tago discloses an apparatus for clamping a "hard" disk having a motor rotating body (inherently, column 4, lines 50-52 discloses a driving member including a turntable 1) having a boss 12a inserted in a central hole (10a, 10b) of the disk 3 and having a threaded portion 2b formed on an outer circumferential surface of the boss and an accommodation surface 1a to support a lower surface of the disk 3; a clamping washer 11 inserted around the boss of the rotating body and placed on an upper surface of the disk; and a clamping nut 15a including threaded portion 15b placed on the clamping washer and coupled to the threaded portion of the boss so as to clamp the disk 3 between the clamping washer and the accommodation surface of the rotating body as set forth in claims 1 and 13.

Regarding claim 7, all method steps are met by Taro as set forth, supra.

Regarding claim 12, Taro discloses that the clamping nut is screwed onto the threaded portion of the boss so as to clamp the disk 3 between the clamping washer and the accommodation surface of the rotating body.

3. Claims 1, 7 and 12-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Korean utility model Laid-Open Publication No. 1999-29337 (hereinafter referred to as "Korean").

Korean, figures on page 4-4, discloses an apparatus for clamping a hard disk having a motor rotating body 11(inherently) having a boss inserted in a central hole of the disks (12, 12a) and having a threaded portion 11a formed on an outer circumferential surface of the boss and an accommodation surface (the surface on top of the numeral 11 and under the disk 12) to support a lower surface of the disk 12; a clamping washer 13a inserted around the boss of the rotating body and placed on an upper surface of the disk; and a clamping nut 14 including threaded portion 14a placed on the clamping washer and coupled to the threaded portion of the boss so as to clamp the disk 12a between the clamping washer and the accommodation surface of the rotating body as set forth in claims 1 and 13.

Regarding claim 7, all method steps are inherently met by Korean as set forth, supra.

Regarding claim 12, Korean discloses that the clamping nut is screwed onto the threaded portion of the boss so as to clamp the disk between the clamping washer and the accommodation surface of the rotating body.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Tago or Korean in view of Baum et al (US. 6,836,461 B2) (hereinafter "Baum").

Neither Tago nor Korean disclose a plurality of holes are formed on a horizontal surface of the clamping nut so that the clamping nut is rotatable by inserting a predetermined jig in the plurality of holes as recited in claim 2.

Baum discloses a disk clamping apparatus having a "jig" 1 having 3 pins for removing/clamping/locking the lock member 11 within the hub 5 through recesses.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the clamping apparatus of either Tago or Korean with such holes and the "jig" as set forth, supra as taught by Baum to avoid the contact between the recording surface and the washer in order to improve the reliability of the clamping apparatus, thus provide a sufficiency of the data storage of the recording medium. Additionally, it would have been obvious to one of ordinary skill in the art to use different technique to clamp the clamping nut to the washer and to the recording medium through a routine clamping technique.

Regarding claim 3, Baum discloses that the number of the holes (member 5 has at least 5 holes) are greater than the number of the holes required for the insertion of the predetermined jig (member 3 has 3 pins).

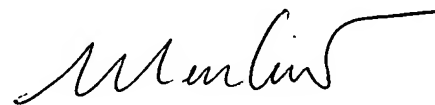
Regarding 4, Taro discloses that an outer circumferential surface of the clamping nut has a ring shape.

6. Claims 5-6 and 8-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen T. Cao whose telephone number is (571) 272-7569. The examiner can normally be reached on Mon - Thurs (7:30 - 6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen Cao  
Primary Examiner